

Semiotic Approach to the Analysis of Children's Drawings

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Abstract

Semiotics, which is used for the analysis of a number of communication languages, helps describe the specific operational rules by determining the sub-systems included in the field it examines. Considering that art is a communication language, this approach could be used in analyzing children's products in art education. The present study aiming at examining primary school students' drawings with a semiotic approach was designed via the art-based research method, and the drawings were analyzed through the semiotic approach. The study was conducted in the primary school 3rd grade course of Visual Arts at two primary schools, one of which had students with lower socio-economic status, and the other had students with higher socio-economic status in the central town of Eskişehir in the spring term of 2010-2011 academic year. The study was carried out with a total of 26 students, and the participants were asked to draw a picture regarding a concept. The research data were collected via the students' drawings and via the clinical interviews held with the students regarding their drawings. At the end of the study, it was found out that the semiotic analysis conducted regarding the students' drawings was not only a tool that helped make psychological descriptions but also an approach that allowed following their mental development processes; that mostly the students attending the school from the lower socio-economic status used both the direct meanings of objects and their meanings based on reason-result relationships; and the symbolic meanings of objects were mostly favored by students attending the school from the higher socio-economic status. In this respect, the semiotic approach could be considered as an effective way to diversify the diagnostic techniques used both by educators and by parents to give meaning to students' inner-worlds and their viewpoints about the environment and to monitor their mental processes while analyzing students' drawings.

Key Words

Primary School, Art Education, Children's Drawings, Semiotics.

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Post-modernism focuses on images conveying cultural meanings and on sociological games played between various cultural forms and institutions (McRobbie, 1999, p. 35). Codeless images achieve transmitting their messages to everyone and thereby help reveal new socio-cultural differences and social formations by shaping the consciousness of the society (Lyotard, 1990, p.18; Salomon, 1988, p. 4; Walling, 2005, p. 1). Post-modernism has occurred with the increasing relationship between modernism and visuals (Mirzoeff, 1998, p. 3). At

this point, visual culture plays an important role in analyzing the complex structures related to the visuals of the post-modern period. Visual culture, a synthesis based on seeing things and on what is shown (Karadağ, 2004, p. 13), is the determiner of the responses given to television, movies, advertisements, art works, constructions and urban environments (McRobbie, 1999; Mirzoeff, 1998; Mitchell, 1995; Rogoff, 1998). What is important in visual culture is not the visual in question but the meanings the visual conveys for the individual, the society and the world. Images that help become aware of meanings rather than aesthetic admiration and related evaluations (Herrmann, 2005, p. 41) are chosen not due to its own aesthetical value but due to the power of its message (Keifer-Boyd, Amburgy, & Knight, 2003, p. 46). Images show not the thing actually seen but its representations in human consciousness. Human consciousness is formed with the layers of history and culture (Lepert, 2002). Individuals start forming new meanings from their own perspectives when they gather the codes of their culture and the images they have stored in their main memory since birth (Türkkan, 2008). The semiotic approach has increasingly gained importance so that people, who live in a visual bombardment today, can analyze the codes included in visual culture and understand the form of visual communication.

Semiotics is a science of non-linguistic communication forms and has been designed as a general science of a number of communication forms including the natural language (Guiraud, 1994, p. 12). Modern semiotics, which examines indicator systems handled in social life, has two pioneers: Pierce, who emphasizes logic and giving meaning, and Saussure, who emphasizes social facts. Semiotics first occurred via works on the language theory rather than on the theory of general indicators. Then, it became a subject for different disciplines. Thanks to Pierce (Bayav, 2006; Özgür, 2006), semiotics has become a separate scientific field, and he explained the concept of indicator with different classifications. One of these classifications suggested by Pierce is the trio of "icon, index and symbol". Icon is an indicator that directly represents the thing it indicates. In other words, it includes the direct or real meaning of the object. As an indicator can generally replace another thing, it is any kind of object, entity or phenomenon which shows something different from itself (Vardar, 1998a, p. 111). The function of an indicator is to animate a second image in line with the communication (Guiraud, 1994; Saussure, 1998). Such aspects of indicators as

social consensus and communication demonstrate that indicators should be handled in a cultural context (Kıran & Kıran, 1996; Vardar, 1998b). Index, as required by the real relationship that it establishes with its object, is an indicator determined by this object. For example, the fact that smoke is an index of fire depends on the reason-result relationship between two things. As for symbol, it is an indicator based on consensus and conveys a symbolic meaning (Rıfat, 1996).

It is seen that the number of published papers on semiotics has gradually increased in recent years. These papers cover various subjects ranging from the theoretical discussions on semiotics and the indicators of post-modern life (Brigham, 1994; Doel, 1996) to the indicators of the language of music (Dunbar-Hall, 1991; Grant, 2003). It is seen that studies carried out on semiotics have mostly focused on the analysis of a production-related object. These studies which included the analyses of the meanings and language of an advertisement (Göçmen, 2006; İmançer & Özel, 1999; Özcan, 2007), literature (Atan, 2008; Rothfield, 1985; Yazıcı, 2007) and drawing (Burunsuz, 2007; Hancı, 2008; Özmutlu, 2009; Sezen, 2007) are also seen in such different disciplines as law, sociology and theatre. It could be stated that the number of educational studies conducted regarding semiotics is limited. Applications of semiotics in the field of education are mostly seen in language education (Andrews, 2007; Demir, 2007; Moore, 1998) and mathematics education (Bakker & Hoffmann, 2005; Bussi & Boni, 2003; Ernest, 2006; Font, Godino, & D'Amore, 2007). However, only a few studies have been conducted on semiotics at primary school level both in our country and abroad (Bayav, 2006; Cowan & Albers, 2006; M. Demir, 2007; S. Demir, 2008).

One of the fields transmitting the included codes as a system of indicators is art. The communication theory that investigates the main laws of the process of art production is semiotics (Karahana, 2004, p. 76). Analysis of the communicative aspect of art via semiotics provides art education with a new perspective. Especially when children's drawings are considered to be a language that children use to express themselves sincerely, the symbolic statements or the object-forms used provide adults with a number of clues. As mentioned by Yavuzer (1997, p. 11), drawing could be regarded as an indicator of mental development and as a way of expressing his or her complex inner world which the child tries to organize on his or her own. According to Smith-

Shank (1995, p. 234), when all the mental processes and implications are taken into consideration, there is no thought which has no sign. While drawing, children make certain arrangements by synthesizing a number of components such as content, style, form, color, line and composition so that they can express what they want to say (Malchiodi, 2005). However, determining only the technical, stylistic and aesthetic values of a drawing will not be sufficient for the child to reflect his or her inner world. The present study is thought to be important because semiotics will provide a different perspective that focuses on the mental processes and implications for the analysis of codeless images expressed in children's drawings and because it will diversify the diagnostic techniques used by trainers.

Purpose

The basic purpose of the present study was to examine children's drawings semiotically. In line with this basic purpose, the following research questions were directed:

- How do students use the indicator types in their drawings?
- What are the icons, indexes and symbols in students' drawings?
- What are the features of the icons, indexes and symbols in students' drawings with respect to the socio-economic status?

Method

Research Model

In the study, the art-based research design was used. In the art-based research model (Huss & Cwikel, 2005), one of qualitative research methods, forms of expression in different fields of art are analyzed systematically (McNiff, 1998, p. 29). In this research design, it is necessary to explain the theoretical, structural and traditional actions in the field of visual arts as art studies are considered to be a complex process in terms of mental processes (Dotson, 2007; Freitas, 2007; GUYAS & KEYS, 2009; Sullivan, 2006). In this design, students' perceptions and viewpoints regarding various situations are determined based on their own impressions via their depictions reflected upon their art products (Eisner, 2002). As it was necessary to make verbal explanations regarding the students' drawings in order to understand what and in what way the students depicted in their drawings (Malchiodi,

2005; Richardson, 1982), the data collected were supported with the clinical interviews held with the students.

Participants

The participants of the study were determined with the criterion sampling method, one of purposeful sampling methods (Yıldırım & Şimşek, 2005). In this respect, the criteria determined by the researcher included students' voluntariness and different socio-economic status. The study was carried out with third grade students from two primary schools, one of which had students with lower socio-economic status, and the other had students with higher socio-economic status in the central city of Eskişehir in the spring term of 2010-2011 academic year. The reason for selecting two schools from different socio-economic status for the application was based on the assumption that examination of whether the students' perceptions and the images regarding their inner worlds reflected upon their drawings differed would provide a richer set of data. In addition, in the study, the reason for selecting the 3rd grade students was based on the assumption that in terms of the steps of pictorial development, students at this age were in a schematic period in which they could use their drawings as a language. A total of 26 students, 13 of whom were from low socio-economic status and 13 of them were from high socio-economic status chosen from the two schools, participated in the study. In order to determine whether the socio-economic level of the schools selected had a parallel socio-economic status, the teachers at these schools were asked for their related views.

Data Collection

The research data were collected via the students' drawings and via the clinical interviews held with them regarding their drawings. The reason for holding clinical interviews with the students during which they talked about their drawings was that this type of interview is open to interrogation and that it has a flexible structure. Clinical interviews, which help understand how students form their inner worlds, what they think, how they operate their cognitive processes and how they make use of their minds (Ginsburg, 1981), allow revealing the natural and real side of knowledge and thought (Clement, 1999) with the help of maximum discussion and interrogation (Hunting, 1997, p. 153). In the study, first, the school administrators

were informed about the purpose and scope of the study and were asked for their permission for the study. The drawings in the study were conducted in two course-hours of the course of visual arts. Before the application, a permission form was sent to the parents of the students who would participate in the study. During the application, the students were given the concept of "key" and were asked to draw a picture regarding the meaning of this concept without talking with the students about the concept. During the interviews, the students were asked to talk about their drawings to reveal the meaning layers underlying all kinds of depiction forms that they drew regarding the concept of "key". For validity purposes, a study was carried out with field experts regarding the concept to be given to the students. The purpose was to have a concept that would help students make associations and to examine whether the students put forward symbolic views regarding different areas of use with the help of this concept. For this purpose, a faculty member from the field of Turkish Language Teaching and a primary school teacher were asked for their views to determine the appropriateness of the selected concept to the students' levels. In addition, in such phases of the study as planning, application and ending, field experts and experts in qualitative research were asked for their views.

Data Analysis

The research data were collected via the students' drawings and via the clinical interviews held with the students regarding their drawings. The students' drawings were analyzed semiotically (Glesne, 2012). For the analyses of the data, first, the students' drawings were examined by the researcher and by two field experts. During this examination, the components found in each drawing were revealed and analyzed semiotically. For the semiotic analysis of the drawings, Pierce's trio of "icon, index and symbol" was used. Thus, all the components found in the drawings were listed and coded in Pierce's classification with the help of the experts. If the components in the drawings were expressed with their direct or real meanings, they were included in the group of icon; if they included reason-result relationship, then they were included in the group of index; and if they were expressed with a symbolic meaning, then they were included in the group of symbol. The decisions regarding which group the components used by the students in their drawings belonged to were made depend-

ing on the students' views they reported during the clinical interviews. The data collected via the clinical interviews were analyzed descriptively. The decisions made on the indicator types and the analyses of the clinical interviews were coded, and for the calculation of the reliability of the codings carried out by the researcher and by the expert, the formula of $(\text{Reliability} = \text{agreement} / (\text{agreement} + \text{disagreement}) \times 100)$ suggested by Miles and Huberman (1994) was used. The reliability of the study was found as 87%. The findings obtained as a result of the analysis of the data are presented in connection with the socio-economic status of the students.

Results

- It was seen that the semiotic analyses conducted in the study could not only help determine or monitor students' mental processes but also allow psychological examination that helps describe their inner worlds.
- In the study, it was found out that the students used the objects in their drawings mostly with icon including its direct meaning and secondly with its symbolic meaning. The indicator type used least by the students was index, which included reason-result relationships.
- It was seen that the number of the students from the school in low socio-economic status who used the icon was twice higher than the students from the school in high socio-economic status. As for those who used the symbol indicator, the number of the students from the school in high socio-economic status was almost twice higher. A majority of the students using the indicator of index, which was the indicator type used least by the students, were those from the school in low socio-economic status.

Discussion

When children's drawings are regarded as a language that they use to express themselves, the semiotic approach, a method of analysis for understanding and analyzing this language, allows reading the drawings from the parts to the whole. In the study, some of the students imagined a house or a car, while some of them emphasized the positive contributions of success to their lives and some others identified success with marriage that results from the love opened with the key of the heart. This finding of the study is consistent with the findings

obtained in a number of studies involving analyses of children's drawings (Akalın, 2008; Dülger, 2008; Ekinçi, 2008; Türkkân, 2004) which, based on the analyses of children's drawings, reported that children's drawings act as a tool for reflecting their inner worlds. In addition, it was also seen that the semiotic analyses conducted in the present study could help determine or monitor students' mental processes besides the results of those studies involving mostly psychological examination. Determining the frequency of expression of an object with its direct meaning, with the reason-result relationship or with the symbolized meanings agreed upon by the society thanks to the semiotic analyses conducted in the study shed light on the current thinking process of the students. This finding obtained in the present study is parallel to the finding obtained in a study carried out by Cowan and Albers (2006), who examined children's drawings and poems with the semiotic approach reporting that the semiotic approach applied on the students' products provided a rich set of data. As mentioned by Smith-Shank (1995, p. 240), the semiotic approach is not a method of instruction but an effective process of diagnosis that could allow analyzing children's learning. In addition, drawing requires signs, and these signs occur on social and cultural basis (Ashwin, 1984).

In the study, it was found out that the students used the objects in their drawings mostly with the icon including direct meanings and secondly with their symbolic meanings. The indicator type used least by the students was index, which included reason-result relationships. It was a striking result that the students from the school in low socio-economic status who used the icon were twice more in number than those from the school in high socio-economic status. It was also revealed that the number of the students from the school in high socio-economic status who used the symbol indicator was almost twice higher. This finding of the study was in consistent with the finding obtained by Bayav (2006, p. 137), who semiotically analyzed children's drawings and found out that "there is a significant difference between the indicator types used by the students and their socio-economic status, and the students in the high socio-economic status group used more symbols than the other students." In addition, this finding obtained in the present study was also supported by Baydar (2009) who reported that students from high socio-economic status are more advantageous in terms of certain perceptions and values. Yavuzer (1997) pointed out that children's drawings are considered to be an indicator

of mental development. In another study carried out by Duman (2006), the researcher reported that mental development has reflections upon artistic development. This finding obtained in the present study is also consistent with those reported by Atalay (2008), who revealed that children's art education and their creativities have a significant relationship with their socio-economic status. In addition, this finding of the present study was also supported by Coleman and his colleagues (1966) and by Jenks and his colleagues (1972 as cited in Kurul Tural, 2003), who reported that school has little influence on children's success and that what is actually influential on their success is children's social class as well as their family origin.

In the study, it was seen that the icon, the indicator type used most by the students participating in the present study, was used for two purposes. The interviews held with the students revealed that they used the concept of key with its direct meaning as an object used for opening a lock and that they also considered it to be a thing that they own. These drawings, which show that they have a house, a car or a safe-box, could be said to demonstrate their dream of a thing they want to own besides its direct meaning as a tool used for opening such objects. Gardner (1990) points out that it is necessary to examine children's world of perception reflected in their drawings they made in their formal education processes as well as in their natural development process. Children's drawings could really be an indicator of a number of factors such as mental development, emotional meanings they attribute to their environments, a way of perceiving their environments and a way of expressing their complex world which they try to organize on their own (Kırıçoğlu, 2002; Malchiodi, 2005; San, 1985; Yavuzer, 1997). This finding of the present study could also be regarded as little children's longing for growing and for owning certain things or as the delight given by a wardrobe owned and reinforced by the sense of owning its key.

In the study, another indicator type used most in the second place following the icon was symbol. With symbols preferred by the students from the school in the high socio-economic status with almost a twice higher rate, the students symbolized the concept of key considering it with abstract meanings. Depending on this result, it could be stated that students from a school in high socio-economic status are more likely to have opportunities to interact with their environments and that they could reflect their perceptions and observations regarding

their environment in their drawings richer in content. Vygotsky's view (1998, p. 81) that such factors as environment and socialization process are influential on children's development of language, concepts and thoughts supports this finding of the present study. Symbolic depictions are similar to metaphorical depictions and could, to a great extent, be considered to be an indicator of abstract thoughts (Lakoff & Johnson, 2005).

According to the results obtained in the study, the indicator type used least in the students' drawings was index, which revealed the reason-result relationships. A majority of the students using index were those from the school in low socio-economic status, and all these students used the answer key. This finding of the study is consistent not only with the finding of a study carried out by Bayav (2006, p. 130), who reported that "the index indicator had similar rates of use in all socio-economic status" but also with the finding of another study conducted by Tay, Kurnaz and Taşdemir (2010), who pointed out that the students of high socio-economic status were more successful in establishing the reason-result relationships. The finding of another study conducted by Gök and Şahin (2009) that primary school teachers prefer to use such traditional assessment methods as written exams and multiple-choice tests could be regarded as one reason for all the students' use of the answer key.

Based on the results of the present study, it could be suggested that students' art products could be examined with the semiotic approach as it allows revealing the mental processes according to the indicator types used. In this way, the diagnosis techniques applied by both teachers and parents to know about their students or children will be varied. Therefore, teachers and parents could be informed about this analysis technique. In addition, similar studies could be designed with quantitative research methods to look from a more generalizable perspective to the indicator types used by students from schools in different socio-economic status.

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